

REMARKS

Applicants have amended their specification on pages 24 and 25, in order to provide clear antecedent basis for the terminology in claim 6, of first and second sub-layers. Noting especially original Fig. 6, it is respectfully submitted that the amendments to the specification, in the paragraph bridging pages 24 and 25 thereof, do not add new matter to the application.

Applicants have amended their claims in order to further clarify the definition of various aspects of the present invention. Specifically, Applicants have incorporated the subject matter expressly recited in claim 3, into claim 1. Noting that claim 3 is dependent on claim 2, Applicants have retained claim 3 in the application. In light of amendments to claim 1, Applicants have cancelled claim 29 without prejudice or disclaimer. In addition, Applicants have amended claim 2 to recite that the low-luster pattern ink "has" the specified property.

Moreover, Applicants are adding new claims 30-33 to the application. Claims 30 and 32, dependent respectively on claims 1 and 2, recite that the first, low-gloss region includes a mixture of a resin component of the low-luster pattern ink and resin of the ionizing radiation-curable resin composition for forming the surface protective layer. Claims 31 and 33, also dependent respectively on claims 1 and 2, recite that the first, low-gloss region has been formed by interaction of resin of the uncured radiation-curable resin composition for the surface protective layer and a resin component of the low-luster pattern ink layer to cause partial elution, dispersion and mixing therebetween.

In connection with newly added claims 30-33, note, for example, the description in the paragraph bridging pages 19 and 20 of Applicants' specification.

Applicants respectfully submit that all of the claims presented for consideration by the Examiner patentably distinguish over the teachings of the prior art applied by the Examiner in rejecting claims in the Office Action dated August 12, 2008, that is, the teachings of the U.S. patents to Takahashi, No. 6,326,074, to Takeuchi, et al., No. 6,558,799, to Tsukada, et al., No. 5,296,340, to Ogawa, et al., No. 5,266,397, to MacQueen, No. 6,841,221, and to Klun, et al., No. 4,855,184, under the provisions of 35 USC 102 and 35 USC 103.

It is respectfully submitted that these references as applied by the Examiner would have neither taught nor would have suggested such a decorative material, or decorative plate, as in the present claims, including, inter alia, the low-luster pattern ink layer formed on part of the substrate and a surface protective layer which is present on and in direct contact with the pattern ink layer so as to cover a whole surface including both a region where a low-luster pattern ink layer is formed and a region where no pattern ink layer is formed, and with the surface protective layer being provided with a first, low-gloss region located in a portion just above the pattern ink layer and in the vicinity of this portion, the pattern ink layer serving to generate a difference in gloss between the first and second regions, the first region being visually recognized as a concave portion, pattern ink of the pattern ink layer containing a non-crosslinked urethane resin and an unsaturated polyester resin as a binder, and with the pattern ink of the pattern ink layer having a property of interacting with the ionizing radiation-curable resin composition for forming the surface protective layer to cause elution, dispersion and mixing therebetween. See claim 1. Note also claim 19.

In addition, it is respectfully submitted that these references would have neither taught nor would have suggested such a decorative material as in the

present claims, having the pattern ink layer formed on part of the substrate and a surface protective layer present on and in direct contact with the pattern ink layer so as to cover a whole surface including regions where the pattern ink layer is formed and where no pattern ink layer is formed, the pattern ink layer serving to generate a difference in gloss between the region where the pattern ink layer is formed and the region where no pattern ink layer is formed, the pattern ink which forms the pattern ink layer containing a non-crosslinked urethane resin as a binder and the ionizing radiation-curable resin composition containing a (meth)acrylate monomer, and wherein the pattern ink has a property of interacting with the ionizing radiation-curable resin composition for forming the surface protective layer to cause elution, dispersion and mixing therebetween. See claim 2. Note also claim 28.

Furthermore, it is respectfully submitted that the teachings of the applied references would have neither disclosed nor would have suggested such decorative material as in the present claims, including further definition of the first, low-gloss region as in claims 30-33, that is, that the first, low-gloss region includes a mixture of a resin component of the low-luster pattern ink and resin of the ionizing radiation-curable resin composition for forming the surface protective layer (note claims 30 and 32); and/or wherein the first, low-gloss region has been formed by interaction of resin of the uncured radiation-curable resin composition for the surface protective layer and a resin component of the low-luster pattern ink layer to cause partial elution, dispersion and mixing therebetween (see claims 31 and 33).

As will be discussed in more detail infra, it must be emphasized that in Takahashi, the layer 5 is a layer not penetrable by the top coat 6. Clearly, the disclosure of Takahashi would have taught away from the feature of the present invention that the low-luster pattern ink of the low-luster pattern ink layer has a

property of interacting with the ionizing radiation-curable resin composition of the top surface layer to cause elution, dispersion and mixing therebetween, as in the present independent claims 1 and 2; or, more specifically, (i) wherein the material has the low-gloss region including a mixture of a resin component of the low-luster pattern ink and resin of the ionizing radiation-curable resin composition for forming the surface protective layer (note claims 30 and 32), or (ii) wherein such low-gloss region has been formed by interaction of resin of the uncured radiation-curable resin composition for the surface protective layer and a resin component of the low-luster pattern ink layer to cause partial elution, dispersion and mixing therebetween (see claims 31 and 33).

Thus, according to aspects of the present invention, it is important that the low-luster pattern ink of the pattern ink layer 3 has a property of interacting with the ionizing radiation-curable resin composition that forms the surface protective layer 5. By providing such surface protective layer and the low-luster pattern ink layer as in the present claims, in direct contact with each other, the, e.g., resin component of the low-luster pattern ink layer and the surface protective layer are interacted with each other to cause partial elution, dispersion and mixing therebetween. In such a case, the respective resin components of the ink contained in the low-luster pattern ink layer and the uncured ionizing radiation-curable resin are not completely compatibilized with each other for a short period of time, but are kept in a suspended state and located in a portion just above the low-luster pattern ink layer and in the vicinity of this portion, so that the suspended portion scatters light to form the low-gloss region. When the surface protective layer is crosslinked and cured while maintaining the suspended state, the suspended state is fixed, so that the low-gloss region is formed in part of the surface protective layer, above the low-luster pattern

ink layer, and is recognized as a concave portion due to optical illusion. Note, for example, the paragraph bridging pages 19 and 20 of Applicants' specification.

As will be discussed further infra, in Takahashi, the nonpenetrable layer 5 is formed for preventing the penetration of the ionizing radiation curing resin (see column 2, lines 54-60 of Takahashi), and is formed by an ink which is impenetrable by an ionizing radiation curing resin constituting the top coat (see column 5, lines 42-50). It is respectfully submitted that such layers described in Takahashi would have neither disclosed nor would have suggested, and in fact would have taught away from, the ionizing radiation-curable resin composition of the surface protective layer, together with the low-luster pattern ink layer formed by the specified pattern ink having the property of interacting with the ionizing radiation-curable resin composition of the surface protective layer, as in the present claims, and effects achieved thereby.

Similarly, in Takeuchi, et al. the first resin layer 2A, the second resin layer 2B and the third layer 2C constituting the two-component cured urethane resin layer 2 are layers comprising the two-component cured urethane resin, and the two-component cured urethane resin comprises the specific polyol component and the isocyanate. Therefore, the third layer 2C in contact with the surface protective layer constitutes the two-component cured urethane resin; and, according to Takeuchi, et al., the third layer 2C has a higher crosslinking density. It is respectfully submitted that the disclosure of Takeuchi, et al. having the third layer 2C with the higher crosslinking density in contact with the surface protective layer, would have neither taught nor would have suggested, and in fact would have taught away from, the presently claimed subject matter, including the low-luster pattern ink having a property of interacting with the ionizing radiation-curable resin composition that forms

the surface protective layer to cause elution, dispersion and mixing therebetween, and advantages achieved thereby.

Furthermore, it is respectfully submitted that the teachings of the applied references would have neither disclosed nor would have suggested such decorative material as in the present claims, having features as discussed previously in connection with claims 1 and 2, and, moreover, wherein the low-luster pattern ink forming the low-luster pattern ink layer contains non-crosslinked urethane resin and unsaturated polyester resin as a binder (see claim 3; note also claim 1); and/or wherein the ionizing radiation-curable resin composition contains a (meth)acrylate monomer solely (see claim 4); and/or wherein the pattern ink forming the pattern ink layer has an uneven thickness as in claim 5, particularly forming regions of relative gloss as in claim 6; and/or wherein the surface protective layer contains fine particles, an average particle size of the fine particles being that set forth in claims 7 and 21, in particular, that set forth in claims 8 and 9, with the amount of fine particles being that set forth in claim 10; and/or wherein the surface protective layer is formed by crosslinking and curing the ionizing radiation-curable resin composition containing ethylene oxide-modified polymerizable compound, and contains particles of baked kaolin, as in claims 11 and 22; and/or wherein a surface of the surface protective layer above the first region has a convex shape (note claims 14 and 25); and/or wherein the material further includes a penetration-preventing layer formed between the substrate and low-luster pattern ink layer, as in claims 15 and 26; and/or wherein the substrate is a penetrable substrate (see claim 16); and/or additional structure of the colored layer, pattern layer and penetration-preventing layer, as in claims 17 and 27; and/or specific woodgrain pattern of the pattern layer as in claim 18.

Noting particularly present claims 15 and 26, aspects of the present invention include a penetration-preventing layer between the substrate and low-luster pattern ink layer. In contrast, as applied by the Examiner, the nonpenetrable layer is being treated by the Examiner as the low-luster pattern ink layer. The present invention includes the penetration-preventing layer to prevent penetration of material thereover (e.g., of the pattern ink layer), into layers thereunder. In contrast, in Takahashi the nonpenetrable layer 5 is provided to avoid penetration of material of the top coat into the penetrable layer 4. Thus, in Takahashi the nonpenetrable layer must be between the penetrable layer 4 and top coat 6. It is respectfully submitted that Takahashi, even as applied by the Examiner, would have taught away from features of the present invention including, e.g., the penetration-preventing layer formed between the substrate and the low-luster pattern ink layer, as in various of the present claims.

The invention as presently being considered on the merits in the above-identified application is directed to a decorative material, and to a decorative plate that includes this material, the decorative material being provided with a pattern which has a visual convexo-concave appearance due to a difference in gloss, the material being excellent in durability.

As described on pages 1-6 of Applicants' specification, various surface decorative plates, and decorative sheets thereof, used for furniture or cabinets, having a laminated structure in which a decorative sheet having, for example, a printed woodgrain pattern, is bonded onto a wood material, an inorganic material, a synthetic resin base material, etc., have been proposed. However, previously proposed decorative sheets, for such surface decorative plates, have various problems, including requirements of forming appropriate concave portions, providing

portions having a satisfactory feel, requiring complicated processing and having high costs.

Against this background, and as a result of intensive research to provide a decorative material having a proper feel and good physical properties, including solvent and abrasion resistance and high laminar strength, the present inventors have found that the desired material can be formed by providing a specific pattern ink layer selectively on a substrate, with a surface protective layer being provided in direct contact with the pattern ink layer and covering a whole surface of a substrate including both a region where the pattern ink layer is formed and a region where the pattern ink layer is not formed, the pattern ink of the pattern ink layer having a specific characteristic with respect to the ionizing radiation-curable resin composition used for forming the surface protective layer. That is, the pattern ink has a property that it interacts with the ionizing radiation-curable resin composition for forming the surface protective layer to cause elution, dispersion and mixing therebetween. Through this relationship between the two layers in direct contact with each other, and as described in the paragraph bridging pages 19 and 20 of Applicants' specification, the pattern ink layer and uncured ionizing radiation-curable resin of the surface protective layer are not completely compatibilized with each other, but are kept in a suspended state, so that the suspended portions gather light to form the low-gloss region. When the surface protective layer is crosslinked and cured while maintaining the suspended state, the suspended state can be fixed, so that the low-gloss region 4 (see Figs. 1-3) is formed in a part of the surface protective layer, over the low-luster pattern ink layer and in the vicinity thereof, and recognized as a concave portion due to optical illusion.

As set forth in the claims of the above-identified application, the pattern ink contains a non-crosslinking resin, e.g., as a binder resin, including non-crosslinked urethane resin, to effectively provide the elution, dispersion and mixing as discussed previously, achieving effects of the present invention.

To be emphasized is that the low-luster pattern ink layer acts in combination with the surface protective layer, in view of direct contact therebetween, and in view of specified interaction therebetween due to materials of these layers, to provide the low-gloss region achieving the appearance of the presently claimed decorative structure.

Note, in particular, pages 19-24 of Applicants' specification. As described therein, the pattern ink layer 3 (see Fig. 1) serves for generating the difference in gloss of the pattern; and it is suggested that resin components of the ink contained in the pattern ink layer, and uncured ionizing radiation-curable resin, are not completely compatibilized with each other but are kept in a suspended state and located in a portion just above the pattern ink layer, so that the suspended portion scatters light to form the low-gloss region. When the surface protective layer is crosslinked and cured while maintaining the suspended state, such a suspended state is fixed, so that the low-gloss region 4 (see Fig. 1) is partially formed in the surface protective layer, and recognized as a concave portion due to optical illusion.

Moreover, by varying coating amount of the pattern ink layer, the pattern ink layer can have an uneven ink thickness, allowing the extent of the portion visually recognized as a concave portion to be stepwise or continuously changed; and, as a result, the decorative material can exhibit a gradation pattern with a difference in gloss which is changed stepwise, or a continuous pattern with the difference in gloss being changed continuously. See page 24, lines 8-19, of Applicants' specification.

Note especially claims 5 and 20, and claims dependent thereon.

According to the present invention, it is important that the pattern ink of the pattern ink layer and the material of the surface protective layer are in direct contact with each other and interact with each other. Note, for example, page 29, lines 13-19, of Applicants' specification.

Takahashi discloses a synchronously embossed decorative sheet including, inter alia, a pattern layer provided on the substrate, a nonpenetrable layer provided on the pattern layer, in tune with the pattern in the pattern layer, the nonpenetrable layer comprising a coating composition being nonpenetrable by an ionizing radiation curing resin; and a top coat layer provided so as to cover the layers on the substrate and to conform to the shape of concaves and convexes in the pattern layer. See column 2, lines 17-33. Note also column 2, lines 54-66. See, further, column 3, lines 1-3; and column 4, line 67, to column 5, line 3.

In Takahashi, the nonpenetrable layer 5 is formed for preventing penetration of the ionizing radiation curing resin, and is formed by an ink nonpenetrable by an ionizing radiation curing resin constituting the top coat. It is respectfully submitted that disclosure of the nonpenetrable layer 5 and of the top coat in Takahashi would have neither disclosed nor would have suggested, and in fact would have taught away from, the presently claimed decorative material, including, inter alia, wherein the pattern ink of the pattern ink layer has the property of interacting with the ionizing radiation-curable resin composition to cause elution, dispersion and mixing therebetween, quite different from the ink forming the nonpenetrable layer 5 of Takahashi.

It is emphasized that in Takahashi, a decorative sheet is obtained by providing a nonpenetrable layer on only a pattern layer, by the use of a

nonpenetrable ink, with a top coat 6 provided above the entire surface of the sheet. In this case, the top coat 6 remains on the nonpenetrable layer, of course, without penetration thereof; and in a region where no nonpenetrable layer is provided, the top coat will penetrate into a penetrable layer to cause a physically different level in height to appear, and to form a concavo-convex pattern. That is, the combination of the penetrable and nonpenetrable layers, together with the top coat, causes the physical concavo-convex pattern to appear. Note, for example, column 2, lines 54-67 of Takahashi.

In contrast, according to the present invention, the decorative material sheet is obtained by applying the ionizing radiation-curable resin composition directly on a low-luster pattern ink layer (including a non-crosslinked resin), resin of the pattern ink layer having compatibility with resin of the ionizing radiation-curable resin composition providing a surface protective layer, and due to, e.g., compatibility of the low-luster pattern ink layer with the ionizing radiation-curable resin composition a low-gloss region is formed having a mat feeling to obtain a decorative sheet excellent in design property, which has the illusion of a visual concavo-convex pattern.

As can be seen in the foregoing, Takahashi operates by a different mechanism from the present invention; and it is respectfully submitted that Takahashi would have neither disclosed nor would have suggested the presently claimed structure, including the pattern ink of the pattern ink layer having the property as recited in the present claims, and low-gloss regions and advantages due thereto.

In the sentence bridging pages 4 and 5 of the Office Action mailed August 12, 2008, the Examiner contends that Takahashi discloses a “nonpenetrable low-luster

pattern ink layer [containing] a non-crosslinked urethane". Such contention by the Examiner is respectfully traversed. That is, it must be emphasized that in Takahashi, the nonpenetrable layer 5, which the Examiner contends corresponds to the pattern ink layer of the present invention, is a nonpenetrable layer. It is respectfully submitted that such nonpenetrable layer would not be non-crosslinked urethane, as in the present invention. That is, were a non-crosslinked urethane to be used as layer 5 in Takahashi, the urethane would be penetrable by the top coat 6. In view of specific disclosure in Takahashi of the nonpenetrable layer to the top coat, it is respectfully submitted that this would have taught away from a non-crosslinked urethane as the layer 5 of Takahashi.

Moreover, the penetrable layer 4 of Takahashi is noted. Such penetrable layer is provided so as to positively allow the top coat to penetrate and to cause a physical concavo-convex appearance to occur, relative to the nonpenetrable layer 5. Note that this penetrable layer 4 is on the substrate side of the nonpenetrable layer 5, different from the low-luster pattern ink layer of the present invention.

It is again emphasized that the low-luster pattern ink layer according to the present invention is a layer to visually realize a concavo-convex feeling, that is, provide the illusion of such concavo-convex structure. It is respectfully submitted that the structure and mechanism of Takahashi, providing concave-convex structure, would have neither taught nor would have suggested the structure or this mechanism of the present invention.

The contention by the Examiner on page 4 of the Office Action mailed August 12, 2008, that Takahashi discloses a first low-gloss region which is located in a portion just above the low-luster pattern ink layer and in the vicinity of this portion, the Examiner referring to the "region above 5, FIGS. 1E and 2 and associated text",

is respectfully traversed. Again emphasizing that layer 5 in Takahashi is expressly disclosed as a nonpenetrable layer, it is respectfully submitted that this reference does not disclose, nor would have suggested, a low-gloss region as in the present claims, and advantages thereof.

It is respectfully submitted that the teachings of the additional references as applied by the Examiner in combination with the teachings of Takahashi as the primary reference, would not have rectified the deficiencies of Takahashi, such that the presently claimed invention as a whole would have been obvious to one of ordinary skill in the art.

Tsukada, et al. discloses a decorative sheet including a sheet having a transparent plastic first substrate sheet and a pattern-printed layer partially or wholly embedded in one or both of the surfaces of the first substrate sheet, a laminate sheet being formed by laminating a transparent plastic second substrate sheet on one surface of the above-mentioned sheet, and a sheet formed by laminating a plastic third substrate sheet having a concealing effect on one surface of the above-mentioned sheet or laminate sheet. See column 1, lines 31-42. Note also column 2, lines 3-8. See, further, column 6, lines 53-55.

Even assuming, arguendo, that the teachings of Tsukada, et al. were properly combinable with the teachings of Takahashi, such combined teachings would have neither disclosed nor would have suggested the present invention, including, inter alia, the layers in direct contact, or the property of the pattern ink of the pattern ink layer, with respect to the ionizing radiation-curable resin composition, achieving the effect as in the present claims. Again, it is emphasized that by having the surface protective layer in direct contact with the pattern ink layer, and the layers made of materials as in the present claims, including the recited property of the pattern ink of

the pattern ink layer, the low-gloss regions are provided providing the beneficial visual effect of the present claims. It is respectfully submitted that the combined teachings of references as applied by the Examiner do not disclose, nor would have suggested, such materials with the recited property of the pattern ink and the direct contact, the effect achieved in combination, and advantages thereof; or the specific structure of the low-gloss region as in claims 30-33, and advantages thereof; or other features of the present invention set forth in the dependent claims, and advantages thereof.

Ogawa, et al. discloses an amorphous silica filler, which exhibits excellent handling properties and processability, and which, when added to a resin film, exhibits excellent dispersing properties, transparency and anti-blocking property, the amorphous silica filler being described, for example, in column 2, lines 33-45. As for properties of the amorphous silica filler, note column 3, lines 54-65, of this patent. See, paragraph bridging columns 3 and 4 of this patent, as well as column 7, lines 17-34.

Even assuming, arguendo, that the teachings of Ogawa, et al. were properly combinable with the teachings of the other references as applied by the Examiner, such combined teachings would have neither disclosed nor would have suggested the presently claimed decorative material, including, inter alia, wherein the surface protective layer and the pattern ink layer are in direct contact with each other, with, e.g., the pattern ink of the pattern ink layer having a property of achieving the specified interaction, providing various advantages achieved by the present invention; and/or structure of the low-gloss region as in claims 30-33, and/or other features of the present invention discussed previously, and advantages thereof.

It is respectfully submitted that the additional teachings of Klun, et al., as applied by the Examiner, even in combination with teachings of the other references as applied by the Examiner, would have neither disclosed nor would have suggested the presently claimed subject matter.

Klun, et al. discloses protective, organic coatings for wood and other substrates, the coatings being formed from radiation-curable thermoplastic coating compositions. The disclosed compositions include normally solid, organic solvent-soluble, thermoplastic, polyethylenically-unsaturated, cellulosic polyurethane polymers as described most generally in column 3, lines 27-61 of this patent. See also the paragraph bridging columns 3 and 4 of this patent.

Even assuming, arguendo, that the teachings of Klun, et al. were properly combinable with the teachings of the other references as applied by the Examiner, it is respectfully submitted that such combined teachings would have neither disclosed nor would have suggested, and in fact would have taught away from, the presently claimed invention, including the surface protective layer and pattern ink layer being in direct contact with each other, and property of the pattern ink, and low-gloss region, and advantages thereof.

MacQueen discloses a covering having a surface texture, and methods of making the same, in particular, a textured coating including a surface coating characterized by a coating thickness and a plurality of expanded micro-capsules having a diameter, wherein the coating thickness is less than the diameter of the micro-capsules. Note column 2, lines 31-36; see also column 1, lines 33-35; and column 2, lines 10-15 and 37-44.

Even assuming, arguendo, that the teachings of MacQueen were properly combinable with the teachings of Takahashi as applied by the Examiner, such

combined teachings would have neither disclosed nor would have suggested the presently claimed invention, including the surface protective layer in direct contact with the low-luster pattern ink layer; and/or property of the low-luster pattern ink forming the low-luster pattern ink layer, and/or the low-gloss region, and effects of the present invention.

It is respectfully submitted that the combination of teachings of references as applied by the Examiner on pages 14-22 of the Office Action mailed August 12, 2008, including the teachings of U.S. Patent No. 6,558,799 to Takeuchi, et al. as primary reference, would have neither disclosed nor would have suggested the presently claimed invention.

Takeuchi, et al. discloses a decorative material for use, for example, in surface material including decorative sheets, the decorative material including a substrate having at least on its surface an active hydrogen-containing polar functional group; and, provided on the substrate, a two-component cured urethane resin layer and a surface resin layer of a crosslinked coating formed from an ionizing radiation curable acrylate resin, the two-component cured urethane resin layer having a structure of at least three layers of a first resin layer, a second resin layer, and a third resin layer provided in that order from the substrate side, the crosslinking density of the second resin layer being lower than that of the first resin layer and that of the third resin layer. See column 2, lines 13-25. Note also column 2, lines 26-31. This patent goes on to disclose that at least one of the at least three layers constituting the two-component cured urethane resin layer may function as a decorative layer. See column 3, lines 48-53. Note also column 4, lines 31-36.

Takahashi has been previously discussed.

It is emphasized that in Takeuchi, et al., the layer 2C, in contact with the surface resin layer 3, is described as having a relatively high crosslinking density, and is not disclosed as a patterned layer partially (selectively) provided on the substrate. It is respectfully submitted that the teachings of Takeuchi, et al., even in combination with the teachings of Takahashi, would have neither taught nor would have suggested the pattern ink layer formed on part of the substrate, in direct contact with the surface protective layer, the pattern ink of the pattern ink layer having the property specified in the present claims, and advantages thereof, particularly with such pattern ink layer generating the low-gloss region, or the low-gloss region as in various of the present claims.

Moreover, it is again emphasized that according to Takeuchi, et al., the third layer 2C in contact with the surface protective layer comprises a two-component cured urethane resin. And according to Takeuchi, et al., the third layer 2C has a higher crosslinking density. In contrast, according to the present invention the pattern ink forming the low-luster pattern ink layer contains, e.g., non-crosslinked urethane resin, noting particularly claims 1 and 2. The cured two-component urethane resin in Takeuchi, et al. has a three-dimensionally crosslinked network molecular structure, different from the non-crosslinked urethane resin of various aspects of the present invention, having a linear molecular structure. Moreover, it is again emphasized that according to the present invention the pattern ink has the property of interacting with the ionizing radiation-curable resin composition. As can be seen from the foregoing, the structure according to the present invention is different from, and would not have been obvious over, the teachings of Takeuchi, et al., even in light of the teachings of secondary references as discussed infra.

That is, it is respectfully submitted that the additional teachings of Takahashi as applied by the Examiner on pages 14-22 of the Office Action mailed August 12, 2008, and further teachings of Tsukada, et al., as applied on pages 19-22 of this Office Action mailed August 12, 2008, would not have rectified the deficiencies of Takeuchi, et al., such that the presently claimed invention as a whole would have been obvious to one of ordinary skill in the art.

The teachings of Takahashi and of Tsukada, et al., have been previously discussed.

Even combining the teachings of Takahashi with the teachings of Takeuchi, et al., and even further in view of the teachings of Tsukada, et al., such combined teachings would have neither disclosed nor would have suggested the presently claimed invention, including the pattern ink layer formed on a part of the substrate, in direct contact with the surface protective layer, with the pattern ink having the property of interacting with the ionizing radiation-curable resin composition for forming the surface protective layer to cause the recited elution, dispersion and mixing, and with the pattern ink layer serving to generate the difference in gloss in the surface protective layer above the pattern ink layer and above other portions of the substrate; and/or other features of the present invention as in the dependent claims, including the more specific definition of the low-gloss region, and advantages of the present invention.

Contentions made by the Examiner on pages 23 and 24 of the Office Action mailed August 12, 2008, are noted. It is respectfully submitted that the "exact same material" and "exact same structure" are not disclosed in Takahashi, as in the present invention. It is again emphasized that in Takahashi a nonpenetrable layer 5 is described, while according to the present invention the pattern ink has the property

of, inter alia, mixing with the radiation-curable resin composition. Clearly, the structures are not the same, one providing a mixed low-gloss region while Takahashi discloses no penetration of the top coat into the nonpenetrable layer.

The contention by the Examiner in the second full paragraph on page 24 of the Office Action mailed August 12, 2008, that Takahashi explicitly teaches all of the layers and their gloss and convex appearances, is noted. Again, and as established in the foregoing, Takahashi provides concaves and convexes by a different mechanism than that of the present invention, Takahashi physically providing concaves and convexes in the patter layer, the present invention utilizing different structure from Takahashi and functioning by a different mechanism as discussed previously. It is respectfully submitted that the Examiner errs in concluding that Takahashi explicitly teaches “all of the layers and their gloss and convex appearances”, as in the present invention.

The further contention by the Examiner in the second full paragraph on page 24 of the Office Action mailed August 12, 2008, that Applicants argue “properties such as excellent durability, satisfactory feel, and less complicated processing and costs, and lights gathering”, is noted. It must be emphasized, however, that Applicants are arguing a property of the ink forming part of the claimed structure. This property of the ink must be considered in determining patentability of the claimed structure.

In view of the foregoing comments and amendments, reconsideration and allowance of all claims presently pending in the above-identified application are respectfully requested.

To the extent necessary, Applicants hereby petition for an extension of time under 37 CFR 1.136. Kindly charge any shortage of fees due in connection with the

filings of this paper, including any extension of time fees, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Account No. 01-2135 (case 396.46088X00), and please credit any overpayments to such Deposit Account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

By /William I. Solomon/
William I. Solomon
Registration No. 28,565

WIS/ksh
1300 N. 17th Street, Suite 1800
Arlington, Virginia 22209
Tel: 703-312-6600
Fax: 703-312-6666